



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

March 6, 2007

Reply To
Attn Of: ETPA-088

06-082-FRC

Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Dear Ms. Salas:

The U.S. Environmental Protection Agency (EPA) has reviewed the draft Environmental Impact Statement (EIS) for the proposed **relicensing of Spokane River and Post Falls Hydroelectric projects** (CEQ# 20060542) located in Kootenai and Benewah Counties, ID and Spokane, Lincoln, and Stevens Counties, WA. Our review was conducted in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Section 309, independent of NEPA, specifically directs EPA to review and comment in writing on the environmental impacts associated with all major federal actions. Under our policies and procedures, we also evaluate the document's adequacy in meeting NEPA requirements.

The draft EIS evaluates the impacts of relicensing the existing Post Falls Project (14.75 MW) in ID and Spokane River Developments (122.9 MW) in WA for the next 30-50 years. The current license for these projects will expire on August 1, 2007. The applicant, Avista Corporation or "Avista", filed two separate applications: one for the Idaho Post Falls Project furthest upstream near the outlet of Lake Coeur d'Alene, the other for the four Spokane River Developments in Washington extending downstream to the Long Lake Development. Avista needs new licenses to continue providing electric power to its 325,000 customers in ID, WA, and MT. Since Avista is not proposing new power generation capacity, the Federal Energy Regulatory Commission (FERC) will only have to decide whether the projects' operations should be reauthorized or not. For this decision to be made and the public to understand its implications, FERC developed and analyzed the following three alternative actions to evaluate what environmental impacts, if any, would be associated with continuing the Projects' operations.

1. **No Action.** Under this alternative, Avista would operate the projects using existing license terms and conditions. This would result in no new environmental effects.
2. **Proposed Action** (Applicant's proposal). Continue to operate the Projects in manner similar to current operations, but with modified reservoir management approaches and flow release regimes, and additional protection, mitigation, and enhancement (PME) measures. Alternative Licensing Process (ALP) with stakeholders was used to identify

specific PME to include in the Projects' operations. Avista is not proposing any new capacity generation.

3. **Preferred Alternative** (FERC Staff Alternative). Operate the projects as proposed, but with FERC Staff recommended PME measures drawn from Avista and stakeholders' proposals in addition to mandatory conditions under the Federal Power Act.

EPA commends FERC for working with a variety of stakeholders through the Alternative Licensing Process (ALP). The draft EIS includes good analyses of potential impacts to resources, and adoption of measures to minimize and mitigate impacts. The key issues associated with the Project relicensing include water quality and quantity, fisheries, erosion and sediment control, recreation opportunities, and wetlands.

We support many of the proposed changes to the Projects' operations identified in the Preferred Alternative, which are put forward to ensure improved resource conditions within the Project area. However, we do have concerns about the Projects' impacts to water quality in Coeur d'Alene Lake, Spokane River and Spokane Lake (Long Lake) where the Projects would continue to degrade water quality by decreasing dissolved oxygen (DO) and increasing total dissolved gas (TDG) and temperature in these waters. We recommend that FERC continue to work with the states of Idaho and Washington on the CWA Section 401 Certification process to assure that water quality standards will be met. The final EIS should include information regarding the status of 401 conditions and more specifics about the Water Quality Monitoring Plan to address water quality problems. In addition, FERC should continue to work with the Spokane and Coeur d'Alene tribes to address their water quality issues related to the Projects. Since the draft EIS also indicates that there is a Superfund cleanup site in the Project area, we are concerned about insufficient information in the draft EIS addressing metal contaminants and sediment supply and transport in the area. The final EIS should include additional information as explained in our detailed comments that follow.

EPA recognizes that Idaho Department of Environmental Quality (IDEQ), the Idaho Department of Fish and Game (IDFG), the Washington Department of Ecology (WDOE) and the Washington Department of Fish and Wildlife (WDFW) have made significant progress in reaching agreement on the use of an adaptive management approach/validation monitoring process to evaluate the establishment of minimum instream flows for Post Falls dam. We support the process and decisions that have been made thus far. We agree with the need for a 5-year water quality monitoring process by Avista to gather additional data on flow relationships and water temperature upstream and downstream of the facility in order to assess the protection of designated beneficial uses. Any credible water quality monitoring effort should have an approved Quality Assurance Project Plan (QAPP). The approval process of this QAPP could be conducted jointly by Idaho and Washington, or if acceptable, EPA could review and approve the QAPP in consultation with both states.

Although the draft EIS indicates that there are applications for two licenses, and issues and discussions are divided accordingly, there appears to be no discussion about the advantages and disadvantages of splitting the existing single license into two separate ones. Given that many issues are common to both States and implementation of some mitigation measures would

cross state lines, there is clearly need for close coordination between the two proposed licenses and consideration of continued operation using one license. We recommend that the final EIS include clarification and further discussion of this subject.

Because of concerns about water quality and missing or unclear information, we have assigned a rating of EC-2 (Environmental Concerns - Insufficient information) to the draft EIS. This rating and a summary of our comments will be published in the *Federal Register*. For your reference, a copy of our rating system used in conducting our review is enclosed.

If you have questions or would like to discuss our comments in detail, please feel free to contact Theo Mbabaliye at (206) 553-6322 or me at (206) 553-1601.

Sincerely,

/s/

Christine Reichgott, Manager
NEPA Review Unit

Enclosure

cc:

EPA Idaho Operations Office
EPA Washington Operations Office
Spokane Tribe
Coeur d'Alene Tribe

EPA Detailed Comments on the draft EIS for Spokane River/Post Falls Hydroelectric Projects

The Projects and associated waterways

The existing Projects are located along the Spokane River, whose mainstem originates at Coeur d'Alene Lake in northern Idaho and runs westward into Washington, through the City of Spokane, into Long Lake (or Spokane Lake) 30 miles downstream, and finally emptying into the Columbia River along the Lake Roosevelt reach. The Post Falls hydroelectric project in Idaho consists of two spillway dams and a power house about 9 miles downstream from the outlet of Coeur d'Alene Lake. The Post Falls project influences lake level and water flow in Coeur d'Alene Lake and its tributaries about 6 months the year. The four Spokane River Developments include Long Lake 30 miles northwest of the Spokane City and Upper Falls, Monroe Street, and Nine Miles developments in downtown Spokane. The latter three facilities are operated as "run-of-river" i.e., there is no water storage behind the power generation facilities. Long Lake which is nearly 24 miles in length, almost 1 mile wide and 180 ft. deep, is the largest reservoir of the four Spokane River Developments.

Water quality

Water quality degradation is one of EPA's primary concerns. Section 303(d) of the Clean Water Act (CWA) requires States (and Tribes with approved standards) to identify water bodies that do not meet water quality standards and to develop water quality restoration plans to meet established water quality criteria and associated beneficial uses. The draft EIS must disclose which waters may be impacted by the project, the nature of potential impacts, and specific pollutants likely to impact those waters. It should also report those water bodies potentially affected by the project that are listed on the States' and Tribes' most current EPA approved 303(d) list.

The draft EIS identifies impaired waters in the Project area and indicates the status of corresponding TMDLs (p. 3-102). We noted that the EPA-approved 1998 303(d) list referred to in the draft EIS is outdated. For the state of Washington, the most current 303(d) list was approved by EPA in November 2005 and for the state of Idaho, the most recent 303(d) list was approved by EPA in November 2002. We recommend that the final EIS include information from these most current 303(d) lists, note any differences between the 1998 and most current lists for relevant parameters and water bodies in the Project area, and discuss analyses and conclusions that may be affected by the more recent information.

The analyses presented in the draft EIS indicate that waters within various parts of the Project area do not currently meet Idaho, Washington or Tribal water quality criteria for DO, TDG, temperature, metals, and sediments thereby impacting associated beneficial uses. For example, the draft EIS states that a model shows that the current impoundment of water behind Long Lake Dam and current Project operations, collectively contribute to exceeding the 8.0-milligrams-per-liter criterion between 3 to 5 months per year (p. 3-132). Monitoring information on power plant discharges show concentrations of less than 8.0 milligrams per liter for a period

of about 120 to 130 days during the summer and fall (p. 3-132). Operations of the Post Falls project have also reduced DO concentrations in Coeur d'Alene Lake (p. 3-120).

We note that the statements on page 5-50 appear to contradict the discussion on page 3-132: "While operation of Long Lake Dam may influence the release of waters with low DO levels to downstream areas in the Spokane River, we have no evidence to indicate that operation of the Long Lake Dam influences oxygen levels within the reservoir." The final EIS needs to correct this contradiction.

Under current Post Falls project operations, water temperatures frequently exceed Washington's 20⁰ C criterion in the reach between Idaho state line and the upper end of the Upriver Reservoir during July-September (p. 3-125). Impounding water in Long Lake increases surface temperatures in this lake reach in mid-spring through summer to 3.6 – 6.8⁰ C above that expected for free-flowing river conditions (p. 3-129). Dam operations lessen this impact somewhat by drawing cooler water into the development from below the thermocline. Water temperatures in Spokane River from its outlet on Coeur d'Alene Lake to the Idaho/Washington state border currently exceed Idaho's criteria (19-22⁰ C) during much of the summer (p. 3-125).

Elevated levels of TDG have also been reported in Project waters. The draft EIS indicates that the States and Tribes have adopted the same TDG criterion of 110% saturation. This TDG level is exceeded throughout the Project area. For example, in the tailrace 1.2 miles downstream from the Post Falls Dam, TDG ranged from a minimum of 92 to 120 percent and had values greater than 110 percent at various times from March to June (p.3-116). Measurements taken downstream of Long Lake Development indicate that nearly half of the measured values exceeded 110 percent. (p. 3-118).

EPA is also concerned about exceedances of water quality criteria for metals. For example, dissolved zinc and cadmium exceed state, tribal and federal water quality criteria by twofold (see discussion in Superfund section below).

The draft EIS states that Avista has applied for CWA Section 401 Water Quality Certification for the Projects and that neither WDOE nor IDEQ has responded to the applications or submitted section 401 conditions at this time (p. 5-76). Although the 401 certification conditions were not ready in time to be included in the draft EIS, we encourage FERC to work closely with the States of Idaho and Washington to assure that water quality certifications can be obtained and that specific requirements to meet state water quality standards are specified and included in the final EIS if possible. The final EIS should include information regarding the status of 401 conditions and more specifics about the Water Quality Monitoring Plan to address water quality problems.

IDEQ and WDOE have developed or are in the process of developing Total Maximum Daily Loads (TMDLs) for 303(d) listed waters (e.g. the TMDL for metals and the TMDL for DO). EPA recommends that FERC coordinate with these agencies in implementing available TMDLs and any other water quality restoration plans for waters within the Project area.

Tribal water quality and consultations

The Projects have the potential to impact the Coeur d'Alene and Spokane Tribes' resources. The Post Falls Hydroelectric project affects resources in the southern part of Coeur d'Alene Lake area on the Coeur d'Alene Tribe's Reservation, including wetlands and vegetation, cultural resources, and water quality. A recent court decision found that the project increases temperature and reduces DO in the area; is responsible for 30% and 50% of erosion in the area's waterways; impacts plant growth and distribution; and has reduced the size of wetlands and impaired their functioning (*Avista vs. Bureau of Indian Affairs*, January 8, 2007). The Long Lake dam is about 1.4 miles upstream from the Spokane Tribe Reservation. The presence and operation of Long Lake dam contribute to low DO levels downstream in the Spokane River and this can cause mortality and morbidity in aquatic organisms, such as fish – an important food source for the Spokane Tribe. Poor water quality in Spokane River downstream of Long Lake dam is not only a result of low DO levels, but also higher temperature and TDG.

Impoundment of water at Post Falls and Long Lake developments results in impacts to tribal water quality both upstream and downstream of the Projects. The draft EIS notes that EPA approved the Spokane Tribe's water quality standards, which apply to waters downstream of Long Lake development. The Coeur d'Alene Tribe has proposed water quality standards that are particularly relevant when analyzing water quality impacts within their reservation at the lower one-third of Coeur d'Alene Lake (p. 3-94). Executive Order (EO) 13175 (*Consultation and Coordination with Indian Tribal Governments*) requires agencies of the U.S. government "to work with Indian tribes on a government-to-government basis to address issues concerning Indian tribal self-government, trust resources, and Indian tribal treaty and other rights." The final EIS must include a discussion about the consultations FERC has had with the Tribes impacted by the Projects, their outcomes, and a discussion of how issues raised in the consultations with the tribes were addressed, especially impacts to water quality and wetlands.

Sole source drinking water protection

Source water is defined as untreated water from streams, rivers, lakes, springs, and aquifers that is used as a supply of drinking water. Source water areas are the sources of drinking water delineated and mapped by the states for each federally-regulated public water system. Thus, the 1996 amendments to the Safe Drinking Water Act (SDWA) require federal agencies to protect these source waters. The draft EIS identifies *Spokane Valley-Rathdrum Prairie Aquifer* as a designated sole source aquifer (p. 3-85) that provides drinking water to more than 450,000 people (p. 3-74).

It would appear that the Post Falls project operations have affected the timing and shape of summer low flows in this aquifer (p. 3-79). In addition, we are concerned that water entering the aquifer may exceed drinking water quality standards. Water in the northern end of Coeur d'Alene Lake, which is the primary source of recharge into the aquifer (p. 3-74), contains levels of dissolved zinc, lead, and cadmium that exceed drinking and surface water quality standards.

We recommend that FERC coordinate with appropriate State and Federal agencies with programs addressing the aquifer issues to ensure its protection as the Projects are implemented.

We are pleased with the Staff's decision to adopt the proposal to upgrade the US Geological Survey (USGS) gage downstream of Post Falls to provide real-time flow information and downstream water level response. EPA encourages FERC to continue to partner with the agencies' ongoing aquifer habitat and water flow and quality studies to better understand the complex aquifer and river interchange relationships.

Bunker Hill Mining and Metallurgical Complex Superfund Site

The draft EIS indicates that there is a Superfund site in the Coeur d'Alene Basin that overlaps with the Project area, with elevated metals concentrations in the surface water, groundwater, soil, sediment and biological resources. We are concerned about missing information or information that is inconsistent with the cleanup site information in the draft EIS and associated impacts to human health and the environment. We recommend that the final EIS include additional information as discussed below.

Executive Summary

- Acknowledgement that there is a Superfund site in the project area.
- In addressing shoreline erosion, wetlands, and riparian areas in the backwaters of Coeur d'Alene Lake, the EIS should acknowledge impacts to both the Coeur d'Alene River and the St. Joe River. During periods when the water level is elevated behind the Post Falls Dam, about 32 mile long slack water is created in the downstream reach of the Coeur d'Alene River and the lateral lakes area.

Section 3.2.1.1 Water Quality

- This discussion does not mention that dissolved zinc and cadmium exceed state, tribal and federal water quality criteria by twofold. Lead concentrations in Lake Coeur d'Alene have also exceeded drinking water standards during high flows. The lake retains about 38% of the zinc input based on the difference between metal loads in and out of Coeur d'Alene Lake (EPA 2002, p. 5-8). Zinc concentrations suppress algae production in the Lake which in turn impacts other aspects of lake chemistry. The water quality exceedances are mentioned later in Section 3.3.3.1.4. But should also be mentioned in the water quality discussion.
- Lake bed sediment pore-water studies suggest that metals continue to flux into and out of solution within the sediment and in the water overlying the sediment. The lake bed geochemistry is a concern because this will determine the extent to which metals in the contaminated sediments may be released and become biologically available.

Section 3.2.1.4 Aquatic Resources

- This section does not mention the Coeur d'Alene Lake fish advisory jointly issued by the State of Idaho and the Coeur d'Alene Tribe in 2003. Fish tissue data from EPA's 2002 Coeur d'Alene Lake study indicate that mercury, lead and arsenic are present with high enough concentrations in fish tissue to warrant a fish advisory. Additional

information on the fish advisory is available at <http://www.state.id.us/dhw/BEHS/>. Fish advisories along the Spokane River should be mentioned.

- This section does not mention that much of the Project Area has been identified as critical habitat for Bull Trout which is a threatened species under the Endangered Species Act. For example, Coeur d'Alene Lake, the St. Joe River and the Main Stem of the Coeur d'Alene River have been identified as critical habitat. This should be noted and cross-referenced in other sections of the EIS discussing endangered species.

Section 3.3.1.1.1 Geology

- Under the *Coeur d'Alene River Delta* discussion, it should be noted that the erosion of the beds and banks of the Coeur d'Alene River is a major source of metals, particulate lead entering the lake in particular. There are an estimated 1.8 million cubic yards of impacted bank materials and an estimated 20.6 million cubic yards of contaminated bed sediment subject to erosion (EPA 2002, p. 5-7). The average lead concentration in sediment within the Lower Coeur d'Alene Basin is 3,100 mg/kg.
- It should also be explained in the DEIS that the Lower Coeur d'Alene Basin wetlands and lateral lake sediments are the major sources of metals ingested by waterfowl and other animals. The area containing more than 530 mg/kg lead (the lowest observed adverse effects level for waterfowl) represents about 95 percent of the 19,200 acres of floodplain habitat present in the Lower Basin (EPA 2002, p. 5-7). The wetland and lateral lakes area in the Lower Basin is greater than it would be naturally since the water level is held artificially high behind the Post Falls Dam during the summer period.
- In the last paragraph in this section, it should also be noted that elevated metals in the river banks have a phytotoxic effect which can inhibit plant growth in the riparian area. This in combination with inundation during the summer growing season (due to water elevation behind the Post Falls Dam) makes it challenging for plants to grow successfully in the riparian area along the Coeur d'Alene River.

Section 3.3.1.1.4 Sediment Supply and Transport

- This section of the draft EIS does not refer to more recent information. The discussion in this section states, for example, that "transport through the lake is expected to consist of very fine suspended silts and clays and to occur only in very high-flow years." But there is also evidence that there may be some movement of metals from the sediment into the water column and this could increase if lake water quality deteriorates due to nutrient enrichment (EPA 2002, p. 5-8). This section should also note that nearly 44-50 million cubic yards of contaminated sediment has been deposited on the bed of Lake Coeur d'Alene (EPA 2002, p. 5-8).
- The EIS also should include information about the impacts the dam operations at Post Falls may have on the transport of contaminated sediment and soils in the Lower Basin and Lake Coeur d'Alene area. Raising water levels may cause contaminated sediments

to be released or re-released in areas within and downstream of the Lower Basin. Raising water levels also makes it easier for boating in the Lower Basin, resulting in riverbanks' erosion of contaminated sediment. As banks erode, contaminated sediment is released and transported downstream. Also, when water levels are lowered, contaminated sediment that was underwater becomes exposed and more available to human and ecological receptors than prior to lowering of the water level. The EIS should acknowledge that the dam's operations may cause releases or re-releases of contaminated sediment/soils within the Basin. The EIS should contain measures to decrease potential releases/re-releases; or actions that mitigate releases of contaminated sediment/soils. Mitigation efforts could include riverbank stabilization, cleanup of contaminated wetlands, or the creation of wetlands in areas that are not contaminated and not likely to become contaminated.

Section 3.3.1.1.5 Erosion

- The *Coeur d'Alene River* discussion should note that due to the historic mining contamination present in the Coeur d'Alene River beds, banks and floodplain, lead-bearing sediment is eroded and transported down the Coeur d'Alene River to Coeur d'Alene Lake and the Spokane River. Erosion of the banks of the mainstem of the Coeur d'Alene River has been recognized as an issue by EPA in the Coeur d'Alene Basin Record of Decision (USEPA 2002, p. 12-4). EPA's cleanup plan includes stabilization of about 33 miles of river bank (measured as length of bank, not as river miles) to reduce the particulate lead loading to the river due to erosion.

Section 3.3.1.1.7 Hazardous Materials

- In the second paragraph, it should be noted that the metals contamination due to historic mining activities has moved downstream into Lake Coeur d'Alene and the downstream Spokane River. This is mentioned elsewhere in the DEIS but Lake CDA and the Spokane River are omitted from this discussion.

Section 3.3.3.1.4 Metals

In this section, there is a brief discussion of the Bunker Hill Superfund site. A few notes about this discussion:

- The first paragraph provides an inaccurate description of the Bunker Hill Superfund site. A better description of the Superfund site is as follows:

“The Bunker Hill Superfund site includes mining contaminated areas in the Coeur d'Alene River corridor, adjacent floodplains, downstream water bodies, tributaries, and fill areas as well as the 21-square mile Bunker Hill “Box” located in the area surrounding the historic smelting operations.” The text should also note that the interim Record of Decision issued by EPA for Operable Unit 3 (Coeur d'Alene Basin) includes cleanup actions in the following areas covered by the EIS analysis area: the Coeur d'Alene River and lateral lakes area as well as recreational areas along the Spokane River upstream of Upriver Dam. A remedy

for Coeur d'Alene Lake is not included in the 2002 Record of Decision but state, tribal, federal and local governments are revising the lake management plan outside of the Superfund process using separate regulatory authorities.

- The first paragraph mentions that the “cleanup is being implemented by the Coeur d'Alene Basin Commission...” The accurate name of the commission is the Coeur d'Alene Basin Environmental Improvement Project Commission. It should be noted in this discussion that while EPA serves as the federal representative on the Commission, EPA continues to be responsible for ensuring that the cleanup work meets the requirements of the applicable Record of Decision as well as the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) laws and regulations.
- The first paragraph also mentions the draft Five-Year Review Report. EPA issued the 2nd Five Year Review Report of cleanup activities in October 2005 (EPA, 2005. Second Five-Year Review – Bunker Hill Mining and Metallurgical Complex Superfund site, Operable Units 1, 2, and 3.) This document has a wealth of current information about the Bunker Hill Superfund site and would have been useful in preparation of the draft EIS. Therefore EPA recommends that the final EIS include up to date data in the paragraph.

Section 3.3.8 Recreational Resources

- No where in this section did we note any mention of contaminated sediments/soils that may need to be addressed when developing and/or improving recreational sites/areas in the project area. For example, on page 3-338 under ***Future Coeur d'Alene Recreation Projects***, the draft EIS states, "All of these improvements generally involve some ground or soil disturbance and could result in the clearing of some vegetation; however, the effect is expected to be minimal because the clearing would generally occur within areas already being used as parks." Some of the areas identified for recreation projects have significantly elevated levels of metals in the soil and sediment due to historic mining contamination. That needs to be considered in both the planning and implementation processes because of implications on how projects should be implemented.
- This section on recreation has a significant focus on enhancing whitewater boating, freestyle boating, canoeing, and other opportunities in the Spokane River downstream from the City of Coeur d'Alene. Comments in this section don't mention the Superfund site and the metals contamination potential.
- This section is laced with statements of communication and collaboration with land management organizations, authorities, and jurisdictions, e.g. Coeur d'Alene Tribe, Benewah County, Kootenai County Parks and Waterways, Bureau of Land Management, and the US Forest Service. Under the Coeur d'Alene Basin Environmental Improvement Project Commission, there is also a Recreational Area Project Focus Team, which considers cleanup of recreational areas and includes all of

the aforementioned entities. This group should also be conferred with as part of the planned recreational area improvements within the Bunker Hill Superfund Site.

Section 3.3.8.1.2 Project Area Recreational Opportunities and Uses

Under section 3.3.8.1.2 second paragraph, we recommend that the following text be included to improve the communication regarding the potential risk in some areas of the Spokane River where recreational use is assumed:

- The Spokane River is also part of the Coeur d'Alene Basin Operable Unit 3 of the Bunker Hill Superfund Site, which has heavy metals contamination in soil, sediment, surface water and groundwater from over 100 years of historic mining activities. Mine tailings were transported downstream from the South Fork Coeur d'Alene River that ultimately washed through Coeur d'Alene Lake and were deposited as sediment within the Spokane River flood channel. For the Spokane River in Idaho, EPA determined that the beaches and the wading areas were safe i.e., concentrations of metals did not exceed risk-based levels for recreation. For the Spokane River in Washington, EPA determined that 10 shoreline beaches and one submerged area require further investigation for future remedial action to remove or cap metal (lead, arsenic) contaminated soils. Currently, EPA has completed the cleanup of the Starr Road Recreational Area that is close to the Centennial Trail. The cleanup at Starr Road resulted in the removal of 1,600 cubic yards of contaminated soil in the shoreline and placement of another 1.77 acre soil cap over an upland area.

Section 5.1.1.2 Staff-Recommended Measures, Water Quality Measures

- The DEIS proposes monitoring of water temperature and dissolved oxygen in Lake Coeur d'Alene for the first five years of the license. Since the license period is 30 to 50 years, it is appropriate to continue monitoring beyond five years but perhaps at a reduced frequency to enable assessment of changes during later years of the license. This monitoring should also be closely coordinated with the lake monitoring program that the State of Idaho and the Coeur d'Alene Tribe will be implementing. For this reasons, we believe that the Staff Alternative should also recommend to FERC to fund the purchase and installation of two new meteorological stations (p. ES-9).
- Given that both lake conditions and the collective understanding of lake system processes will evolve over the coming decades, effectiveness monitoring should be used to assess whether revisions to the monitoring program (and also dam operations) are appropriate in the future.

Economic data

The draft EIS should include enough detailed economic data for the Projects, including underlying calculations and assumptions so the reader can understand where the reported figures came from. For example, Tables 4.4-1 and 4.4-2 should be accompanied with perhaps an appendix that shows how the figures for each line item on the list were obtained. The Net Annual Benefit shown in the tables for the Projects represents each alternative's gross pretax

profits for the dams. Gross pretax profits do not represent each alternative's economic value i.e., that alternative's Net Economic Benefit. The Net Economic Benefit would include the relevant environmental costs and benefits, which have not been reported in the draft EIS. The final EIS should clarify economic data for the projects.

References:

- EPA, 2002. Record of Decision – The Bunker Hill Mining and Metallurgical Complex Operable Unit 3. September 2002.
- EPA, 2005. Second Five-Year Review – Bunker Hill Mining and Metallurgical Complex Superfund Site, Operable Units 1, 2, and 3.